IFWO

RAW SEQUENCE LISTING DATE: 09/13/2004
PATENT APPLICATION: **US/10/827,121** TIME: 11:16:40

Input Set : **A:\407J-981114US.ST25.txt**
Output Set: **N:\CRF4\09132004\J827121.raw**

<110> APPLICANT: The Regents of the University of California
Baxter, John D
Fletterick, Robert J
Kushner, Peter J
<120> TITLE OF INVENTION: Nuclear Receptor Ligands and Ligand Binding Domains
<130> FILE REFERENCE: 407J-981114US
<140> CURRENT APPLICATION NUMBER: US 10/827,121
<141> CURRENT FILING DATE: 2004-04-16
<160> NUMBER OF SEQ ID NOS: 16
<170> SOFTWARE: PatentIn version 3.2
<210> SEQ ID NO: 1
<211> LENGTH: 410
<212> TYPE: PRT
<213> ORGANISM: Rattus sp.
<400> SEQUENCE: 1

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Met Glu Gln Lys Pro Ser Lys Val Glu Cys Gly Ser Asp Pro Glu Glu
1               5                  10                  15
Asn Ser Ala Arg Ser Pro Asp Gly Lys Arg Lys Arg Lys Asn Gly Gln
            20                  25                  30
Cys Pro Leu Lys Ser Ser Met Ser Gly Tyr Ile Pro Ser Tyr Leu Asp
        35                  40                  45
Lys Asp Glu Gln Cys Val Val Cys Gly Asp Lys Ala Thr Gly Tyr His
    50                  55                  60
Tyr Arg Cys Ile Thr Cys Glu Gly Cys Lys Gly Phe Phe Arg Arg Thr
65                  70                  75                  80
Ile Gln Lys Asn Leu His Pro Thr Tyr Ser Cys Lys Tyr Asp Ser Cys
                85                  90                  95
Cys Val Ile Asp Lys Ile Thr Arg Asn Gln Cys Gln Leu Cys Arg Phe
            100                 105                 110
Lys Lys Cys Ile Ala Val Gly Met Ala Met Asp Leu Val Leu Asp Asp
        115                 120                 125
Ser Lys Arg Val Ala Lys Arg Lys Leu Ile Glu Gln Asn Arg Glu Arg
    130                 135                 140
Arg Arg Lys Glu Glu Met Ile Arg Ser Leu Gln Gln Arg Pro Glu Pro
145                 150                 155                 160
Thr Pro Glu Glu Trp Asp Leu Ile His Val Ala Thr Glu Ala His Arg
                165                 170                 175
Ser Thr Asn Ala Gln Gly Ser His Trp Lys Gln Arg Arg Lys Phe Leu
            180                 185                 190
Pro Asp Asp Ile Gly Gln Ser Pro Ile Val Ser Met Pro Asp Gly Asp
        195                 200                 205
Lys Val Asp Leu Glu Ala Phe Ser Glu Phe Thr Lys Ile Ile Thr Pro
    210                 215                 220
```

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```
82 Ala Ile Thr Arg Val Val Asp Phe Ala Lys Lys Leu Pro Met Phe Ser
83 225                 230                 235                 240
86 Glu Leu Pro Cys Glu Asp Gln Ile Ile Leu Leu Lys Gly Cys Cys Met
87                 245                 250                 255
90 Glu Ile Met Ser Leu Arg Ala Ala Val Arg Tyr Asp Pro Glu Ser Asp
91             260                 265                 270
94 Thr Leu Thr Leu Ser Gly Glu Met Thr Val Lys Arg Lys Gln Leu Lys
95         275                 280                 285
98 Asn Gly Gly Leu Gly Val Val Ser Asp Ala Ile Phe Glu Leu Gly Lys
99     290                 295                 300
102 Ser Leu Ser Ala Phe Asn Leu Asp Asp Thr Glu Val Ala Leu Leu Gln
103 305                 310                 315                 320
106 Ala Val Leu Leu Met Ser Thr Asp Arg Ser Gly Leu Leu Cys Val Asp
107                 325                 330                 335
110 Lys Ile Glu Lys Ser Gln Glu Ala Tyr Leu Leu Ala Phe Glu His Tyr
111             340                 345                 350
114 Val Asn His Arg Lys His Asn Ile Pro His Phe Trp Pro Lys Leu Leu
115         355                 360                 365
118 Met Lys Val Thr Asp Leu Arg Met Ile Gly Ala Cys His Ala Ser Arg
119     370                 375                 380
122 Phe Leu His Met Lys Val Glu Cys Pro Thr Glu Leu Phe Pro Pro Leu
123 385                 390                 395                 400
126 Phe Leu Glu Val Phe Glu Asp Gln Glu Val
127                 405                 410
130 <210> SEQ ID NO: 2
131 <211> LENGTH: 410
132 <212> TYPE: PRT
133 <213> ORGANISM: Homo sapiens
135 <400> SEQUENCE: 2
137 Met Glu Gln Lys Pro Ser Lys Val Glu Cys Gly Ser Asp Pro Glu Glu
138 1               5                   10                  15
141 Asn Ser Ala Arg Ser Pro Asp Gly Lys Arg Lys Arg Lys Asn Gly Gln
142             20                  25                  30
145 Cys Ser Leu Lys Thr Ser Met Ser Gly Tyr Ile Pro Ser Tyr Leu Asp
146         35                  40                  45
149 Lys Asp Glu Gln Cys Val Val Cys Gly Asp Lys Ala Thr Gly Tyr His
150     50                  55                  60
153 Tyr Arg Cys Ile Thr Cys Glu Gly Cys Lys Gly Phe Phe Arg Arg Thr
154 65                  70                  75                  80
157 Ile Gln Lys Asn Leu His Pro Thr Tyr Ser Cys Lys Tyr Asp Ser Cys
158                 85                  90                  95
161 Cys Val Ile Asp Lys Ile Thr Arg Asn Gln Cys Gln Leu Cys Arg Phe
162             100                 105                 110
165 Lys Lys Cys Ile Ala Val Gly Met Ala Met Asp Leu Val Leu Asp Asp
166         115                 120                 125
169 Ser Lys Arg Val Ala Lys Arg Lys Leu Ile Glu Gln Asn Arg Glu Arg
170     130                 135                 140
173 Arg Arg Lys Glu Glu Met Ile Arg Ser Leu Gln Gln Arg Pro Glu Pro
174 145                 150                 155                 160
```

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Input Set : A:\407J-981114US.ST25.txt
Output Set: N:\CRF4\09132004\J827121.raw

```
177 Thr Pro Glu Glu Trp Asp Leu Ile His Ile Ala Thr Glu Ala His Arg
178                 165                 170                 175
181 Ser Thr Asn Ala Gln Gly Ser His Trp Lys Gln Arg Arg Lys Phe Leu
182             180                 185                 190
185 Pro Asp Asp Ile Gly Gln Ser Pro Ile Val Ser Met Pro Asp Gly Asp
186         195                 200                 205
189 Lys Val Asp Leu Glu Ala Phe Ser Glu Phe Thr Lys Ile Ile Thr Pro
190     210                 215                 220
193 Ala Ile Thr Arg Val Val Asp Phe Ala Lys Lys Leu Pro Met Phe Ser
194 225                 230                 235                 240
197 Glu Leu Pro Cys Glu Asp Gln Ile Ile Leu Leu Lys Gly Cys Cys Met
198                 245                 250                 255
201 Glu Ile Met Ser Leu Arg Ala Ala Val Arg Tyr Asp Pro Glu Ser Asp
202             260                 265                 270
205 Thr Leu Thr Leu Ser Gly Glu Met Ala Val Lys Arg Glu Gln Leu Lys
206         275                 280                 285
209 Asn Gly Gly Leu Gly Val Val Ser Asp Ala Ile Phe Glu Leu Gly Lys
210     290                 295                 300
213 Ser Leu Ser Ala Phe Asn Leu Asp Asp Thr Glu Val Ala Leu Leu Gln
214 305                 310                 315                 320
217 Ala Val Leu Leu Met Ser Thr Asp Arg Ser Gly Leu Leu Cys Val Asp
218                 325                 330                 335
221 Lys Ile Glu Lys Ser Gln Glu Ala Tyr Leu Leu Ala Phe Glu His Tyr
222             340                 345                 350
225 Val Asn His Arg Lys His Asn Ile Pro His Phe Trp Pro Lys Leu Leu
226         355                 360                 365
229 Met Lys Val Thr Asp Leu Arg Met Ile Gly Ala Cys His Ala Ser Arg
230     370                 375                 380
233 Phe Leu His Met Lys Val Glu Cys Pro Thr Glu Leu Phe Pro Pro Leu
234 385                 390                 395                 400
237 Phe Leu Glu Val Phe Glu Asp Gln Glu Val
238                 405                 410
241 <210> SEQ ID NO: 3
242 <211> LENGTH: 461
243 <212> TYPE: PRT
244 <213> ORGANISM: Homo sapiens
246 <400> SEQUENCE: 3
248 Met Thr Pro Asn Ser Met Thr Glu Asn Gly Leu Thr Ala Trp Asp Lys
249 1               5                   10                  15
252 Pro Lys His Cys Pro Asp Arg Glu His Asp Trp Lys Leu Val Gly Met
253             20                  25                  30
256 Ser Glu Ala Cys Leu His Arg Lys Ser His Ser Glu Arg Arg Ser Thr
257         35                  40                  45
260 Leu Lys Asn Glu Gln Ser Ser Pro His Leu Ile Gln Thr Thr Trp Thr
261     50                  55                  60
264 Ser Ser Ile Phe His Leu Asp His Asp Asp Val Asn Asp Gln Ser Val
265 65                  70                  75                  80
268 Ser Ser Ala Gln Thr Phe Gln Thr Glu Glu Lys Lys Cys Lys Gly Tyr
269                 85                  90                  95
```

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Input Set : A:\407J-981114US.ST25.txt
Output Set: N:\CRF4\09132004\J827121.raw

```
272 Ile Pro Ser Tyr Leu Asp Lys Asp Glu Leu Cys Val Val Cys Gly Asp
273             100                 105                 110
276 Lys Ala Thr Gly Tyr His Tyr Arg Cys Ile Thr Cys Glu Gly Cys Lys
277         115                 120                 125
280 Gly Phe Phe Arg Arg Thr Ile Gln Lys Asn Leu His Pro Ser Tyr Ser
281     130                 135                 140
284 Cys Lys Tyr Glu Gly Lys Cys Val Ile Asp Lys Val Thr Arg Asn Gln
285 145                 150                 155                 160
288 Cys Gln Glu Cys Arg Phe Lys Lys Cys Ile Tyr Val Gly Met Ala Thr
289                 165                 170                 175
292 Asp Leu Val Leu Asp Asp Ser Lys Arg Leu Ala Lys Arg Lys Leu Ile
293             180                 185                 190
296 Glu Glu Asn Arg Glu Lys Arg Arg Arg Glu Glu Leu Gln Lys Ser Ile
297         195                 200                 205
300 Gly His Lys Pro Glu Pro Thr Asp Glu Glu Trp Glu Leu Ile Lys Thr
301     210                 215                 220
304 Val Thr Glu Ala His Val Ala Thr Asn Ala Gln Gly Ser His Trp Lys
305 225                 230                 235                 240
308 Gln Lys Pro Lys Phe Leu Pro Glu Asp Ile Gly Gln Ala Pro Ile Val
309                 245                 250                 255
312 Asn Ala Pro Glu Gly Gly Lys Val Asp Leu Glu Ala Phe Ser His Phe
313             260                 265                 270
316 Thr Lys Ile Ile Thr Pro Ala Ile Thr Arg Val Val Asp Phe Ala Lys
317         275                 280                 285
320 Lys Leu Pro Met Phe Cys Glu Leu Pro Cys Glu Asp Gln Ile Ile Leu
321     290                 295                 300
324 Leu Lys Gly Cys Cys Met Glu Ile Met Ser Leu Arg Ala Ala Val Arg
325 305                 310                 315                 320
328 Tyr Asp Pro Glu Ser Glu Thr Leu Thr Leu Asn Gly Glu Met Ala Val
329                 325                 330                 335
332 Ile Arg Gly Gln Leu Lys Asn Gly Gly Leu Gly Val Val Ser Asp Ala
333             340                 345                 350
336 Ile Phe Asp Leu Gly Met Ser Leu Ser Ser Phe Asn Leu Asp Asp Thr
337         355                 360                 365
340 Glu Val Ala Leu Leu Gln Ala Val Leu Leu Met Ser Ser Asp Arg Pro
341     370                 375                 380
344 Gly Leu Ala Cys Val Glu Arg Ile Glu Lys Tyr Gln Asp Ser Phe Leu
345 385                 390                 395                 400
348 Leu Ala Phe Glu His Tyr Ile Asn Tyr Arg Lys His His Val Thr His
349                 405                 410                 415
352 Phe Trp Pro Lys Leu Leu Met Lys Val Thr Asp Leu Arg Met Ile Gly
353             420                 425                 430
356 Ala Cys His Ala Ser Arg Phe Leu His Met Lys Val Glu Cys Pro Thr
357         435                 440                 445
360 Glu Leu Leu Pro Pro Leu Phe Leu Glu Val Phe Glu Asp
361     450                 455                 460
364 <210> SEQ ID NO: 4
365 <211> LENGTH: 416
366 <212> TYPE: PRT
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Input Set : A:\407J-981114US.ST25.txt
Output Set: N:\CRF4\09132004\J827121.raw

<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 4

```
Pro Asn Ser Asn His Val Ala Ser Gly Ala Gly Glu Ala Ala Ile Glu
1               5                  10                  15
Thr Gln Ser Ser Ser Ser Glu Glu Ile Val Pro Ser Pro Pro Ser Pro
            20                  25                  30
Pro Pro Leu Pro Arg Ile Tyr Lys Pro Cys Phe Val Cys Gln Asp Lys
        35                  40                  45
Ser Ser Gly Tyr His Tyr Gly Val Ser Ala Cys Glu Gly Cys Lys Gly
    50                  55                  60
Phe Phe Arg Arg Ser Ile Gln Lys Asn Met Val Tyr Thr Cys His Arg
65                  70                  75                  80
Asp Lys Asn Cys Ile Ile Asn Lys Val Thr Arg Asn Arg Cys Gln Tyr
                85                  90                  95
Cys Arg Leu Gln Lys Cys Phe Glu Val Gly Met Ser Lys Glu Ser Val
            100                 105                 110
Arg Asn Asp Arg Asn Lys Lys Lys Lys Glu Val Pro Lys Pro Glu Cys
        115                 120                 125
Ser Glu Ser Tyr Thr Leu Thr Pro Glu Val Gly Glu Leu Ile Glu Lys
    130                 135                 140
Val Arg Lys Ala His Gln Glu Thr Phe Pro Ala Leu Cys Gln Leu Gly
145                 150                 155                 160
Lys Tyr Thr Thr Asn Asn Ser Ser Glu Gln Arg Val Ser Leu Asp Ile
                165                 170                 175
Asp Leu Trp Asp Lys Phe Ser Glu Leu Ser Thr Lys Cys Ile Ile Lys
            180                 185                 190
Thr Val Glu Phe Ala Lys Gln Leu Pro Gly Phe Thr Thr Leu Thr Ile
        195                 200                 205
Ala Asp Gln Ile Thr Leu Leu Lys Ala Ala Cys Leu Asp Ile Leu Ile
    210                 215                 220
Leu Arg Ile Cys Thr Arg Tyr Thr Pro Glu Gln Asp Thr Met Thr Phe
225                 230                 235                 240
Ser Asp Gly Leu Thr Leu Asn Arg Thr Gln Met His Asn Ala Gly Phe
                245                 250                 255
Gly Pro Leu Thr Asp Leu Val Phe Ala Phe Ala Asn Gln Leu Leu Pro
            260                 265                 270
Leu Glu Met Asp Asp Ala Glu Thr Gly Ile Leu Ser Ala Ile Cys Leu
        275                 280                 285
Ile Cys Gly Asp Arg Gln Asp Leu Glu Gln Pro Asp Arg Val Asp Met
    290                 295                 300
Leu Gln Glu Pro Leu Leu Glu Ala Leu Lys Val Tyr Val Arg Lys Arg
305                 310                 315                 320
Arg Pro Ser Arg Pro His Met Phe Pro Lys Met Leu Met Lys Ile Thr
                325                 330                 335
Asp Leu Arg Ser Ile Ser Ala Lys Gly Ala Glu Arg Val Ile Thr Leu
            340                 345                 350
Lys Met Glu Ile Pro Gly Ser Met Pro Pro Leu Ile Gln Glu Met Leu
        355                 360                 365
Glu Asn Ser Glu Gly Leu Asp Thr Leu Ser Gly Gln Pro Gly Gly Gly
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VERIFICATION SUMMARY DATE: 09/13/2004
PATENT APPLICATION: **US/10/827,121** TIME: 11:16:41

Input Set : **A:\407J-981114US.ST25.txt**
Output Set: **N:\CRF4\09132004\J827121.raw**